

Application No.: 10/510475
Inventor: Goertz et al.
Amendment of March 22, 2006
Reply to Notice of Allowance
Docket No.: 53407

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A process for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula I



where

M is a metal of group VIII;

L¹ is cyclooctadiene;

each L² is independently tetrahydrofuran or a ligand which is displaceable by tetrahydrofuran;

Z is an anion;

a is 1 or 2;

b is an integer from 0 to 4;

c is 1 or 2; and

m and n are integers from 1 to 4.

2. (original) A process as claimed in claim 1 where M is Co, Rh, Ir, Ni, Pd or Pt.

3. (previously presented) A process as claimed in claim 1 where L² is selected from tetrahydrofuran, nitriles, CO, alkenes, amines, ethers, carboxylic esters, carbonic esters, epoxides, hemiacetals, acetals and nitro compounds.

4. (original) A process as claimed in claim 3 where L² is selected from acetonitrile, tetrahydrofuran and CO.

5. (previously presented) A process as claimed in claim 1 where Z is a halide, sulfonate of the formula OSO₂R, where R is alkyl, partially or fully halogenated alkyl or aryl, carboxylate,

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complexed borate, complexed phosphate, complexed arsenate or complexed antimonate, with the proviso that not all Z radicals are halide.

6. (original) A process as claimed in claim 5 wherein at least one Z radical is a perfluoroalkylsulfonate, tetrafluoroborate, hexafluorophosphate or hexafluoroantimonate.

7. (previously presented) A process as claimed in claim 1 where the catalyst is selected from $[\text{Pd(II)(cod)(THF)}_x](\text{SbF}_6)_2$ and $[\text{Pd(II)(cod)(CH}_3\text{CN)}_x](\text{PF}_6)_2$ where

cod is cyclooctadiene,

THF is tetrahydrofuran and

x is an integer from 1 to 3.

8. (previously presented) A process as claimed in claim 1 where the formaldehyde source is formaldehyde, trioxane or paraformaldehyde.

9. (currently amended) A process for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula



where

Cp is pentamethylcyclopentadienyl.

Cp* is pentamethylcyclopentadienyl.